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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,817	09/26/2003	Joerg Rheims	VOI0276.US	8920

7590

02/07/2005

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EXAMINER

ALVO, MARC S

ART UNIT

PAPER NUMBER

1731

DATE MAILED: 02/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,817

Applicant(s)

RHEIMS ET AL

Examiner

Steve Alvo

Art Unit

1731

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>10-2003</u> | 6) <input type="checkbox"/> Other: ____ |

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term refining said fiber suspension prior to said loading step” is inconsistent with claim which calls for the loading of the fibers “without refining. The term of claim 1 is being interpreted to exclude refining of the stock during or prior loading as the claim calls for “without refining the stock”. Claim 1 is not clear as to when the loading is excluded.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over KLUNGNESS (5,223,090).

KLUNGNESS et al teaches (column 6, lines 38 to column 7, line 5) teaches providing a fibrous suspension at a consistency of 15-60% with precipitated calcium carbonate (column 6, line 55); forming the pulp into a slurry (diluted); refined and placing the pulp in a paper machine (Fourdrinier), see column 6, lines 55-59 to alter the characteristics of the fibers. Any difference would have been an obvious modification over KLUNGNESS et al, e.g. obviously the pulp is at

a predetermined consistency as using a certain consistency for precipitation of the calcium carbonate is taught by KLUNGNESS et al, column 6, lines 64-66.

Claims 7-10 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over KLUNGNESS (5,223,090) as applied to claims 1-6 above, and further in view of HOSKINS (6,059,924).

HOSKINS teaches the importance of using lower consistencies (column 4, lines 24-50), e.g. 3%, to lower the energy requirements during the refining stage. It would have been obvious to slurry (dilute) the pulp of KLUNGNESS to the consistencies taught by HOSKINS to save energy in the subsequent refining stage. See HOSKINS, claims 5 and 9 for consistency of 4% and see column 4, lines 18-22 for consistencies of 1-40%. See HOSKINS, column 5, lines 49-51 for using a plurality of refiners. See HOSKINS, column

Claims 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over KLUNGNESS (5,223,090) as applied to claims 1-6 above, and further in view of DOELLE (6,355,138).

DOELLE teaches reefing prior to (38) and after (32) chemical loading in the reactor between the refiners. It would have been obvious to open up the fibers of KLUNGNESS et al, prior to loading, to make them more accessible to the precipitated calcium carbonate in the manner taught by DOELLE.

Claims 10-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over KLUNGNESS (5,223,090) as applied to claims 1-6 above, and further in view of SABOURIN (5,776,305).

SABOURIN teaches saving refiner energy and to improve the pulp freeness by using a plurality of refiners instead of a single refiner. It would have been obvious to use the plurality of

refiners of SABOURIN for the single refiner of KLUNGNESS to save refining energy in improve the freeness of the pulp.

Claims 16-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over KLUNGNESS (5,223,090) as applied to claims 1-6 above, and further in view of MATTHEW (5,954,283).

MATTHEW teaches using refiner plates or refiner fillings for papermaking having refiner slots and structured surfaces including intersecting angles between 30 to 60 degrees (column 5, lines 35-37) and having offset side edges to reduce cost and durability of the refiner blades (column 6, lines 1-10). It would have been obvious to reduce the refiner cost and increase the durability of the refiner using the blades of MATTHEW.

New drawings are required as the labels are not in English, see Figure 4.

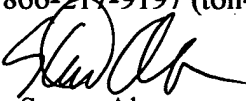
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Alvo whose telephone number is 571-272-1185. The examiner can normally be reached on 5:45 AM - 2:15 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Steve Alvo
Primary Examiner
Art Unit 1731

msa